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## Lecture – 13 Plastic Waste Management rules (Contd.)

So, welcome back, we will continue our discussion on the Plastic Waste Management rules, that we have been doing for last two module. So, this is again, this is a new rule, we just came out last year. So, things are still being evolved in terms of in India like how to implement the rule, there have been certain bans in India in which you are probably aware, we talked about that in the class as well.

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So, let us discuss some more aspect of that rule which we have been doing; so, again just to recap in this particular week this is the third video of the week. So, we are kind of the middle for this particular for the third week of this course.

So, here we will be looking at; we are looking at plastic waste management rules of India which is 2016 rules and then, we also we will try to compare and contrast with global rules and regulation.

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So, you saw some of the responsibilities of different stakeholder of the rule in the previous video. So, with continuing with the same discussion, if you look at we have been, what we have tried to do in these slides is try to highlight, kind of these slides are a summary of that rule document which is available as a reading material for this week and I showed you in one of the slides, I showed you the front page of that rule as well.

So, you can download it from Google, but to make it kind of as part of the reading material we are also putting a copy of the rule on the web for you to read. So, in terms of here as if you look at we have, you may have seen in the previous slides as well, what we have tried to do is, we have put some rule number and these numbers corresponds to the number which is there in the rule document; as a government of India document. So, this is the as per, when we say as per rule 8 so, this is reference to the rule number 8 of that particular document.

So, that is, what that means, so, you should not get confused with that and this is just the number referring to that rule in the document. So, that when you take this slide and keep the document side by side, try to understand the rule this will help you, this is kind of a summary of as I said from that solid waste management rules, sorry plastic waste management rules.

So, in terms of the generator; generator means what? The people who are generating the waste the people. So, in this case, it is the personnel who are generating plastic wastes

and that includes pretty much everyone. So, because we each one of us on this planet I can say and we are talking about in India, so each one of us in the country is somehow producing plastic waste whether you buy a small wrapper for, you buy a product which is wrapped with plastic, you use single use plastic. So, or you used anything that you use which is plastic, when you throw it away, when you put it in the dustbin so, you producing a plastic waste.

So, every person responsible for organizing and every person who is responsible for organizing an event in an open space, if somebody's organizing an event in an open space, which involves service or foodstuff in plastic or multi layered plus packaging shall segregate and manage the waste during this during this such event.

So, if you are organizing an event where the plastic is part of that particular event, in the way that you are giving some food item which is wrapped in plastic or it could be multi layer plus packaging, so as a organizer of that particular event, you are responsible to segregate the plus of the waste and manage the waste during such event.

So, if you compare this with the solid waste management rules, 2016 that also says the same thing; so, if you are organizing a event you have to do the wet and dry separation. So, similar concept has been extended in plastic waste management rules where they are looking at segregate is managing the waste during such event. So, and the, what are some of the other stuff here, like a waste generators during, waste generator shall minimize generation of plastic waste.

So, the waste, the waiver is the people who are generating the waste shall try to minimize the generation of plastic waste and segregate. And so, there is a lot of focus on segregation; so, a lot of focus is on there on segregation, not litter plastic waste. So, littering and handover segregated plastic waste to local bodies. So, that is what the rule says so, in terms of plastic waste management rules, we are kind of going a step ahead, then solid waste management rules, solid waste management rule says wet and dry.

Here we are talking about, you have to do is to wet and dry because you have to you have to follow solid waste management rules, but at the same time, you also have to look at the separating the plastic waste from the other waste stream. And then, all institution based generators segregate and store in accordance with municipal solid waste

management rules. So, institution has also has to do that, all waste generators will pay a user fee.

So, if you compare this with the waste management rules of 2016 and the plastic waste management rules pretty much it is in the same later and in spirit, the only thing is that, here the little bit more focus is being given in terms of managing the plastic waste separately as far as possible. So, if you can take the plastic waste away from the other waste stream.

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Now, some responsibilities have been highlighted in these small bubbles here a step by step. Now, what are the producers have to do, what the producers importance and brand owners has to do, this is responsibility of producers, importers and brand owners as per rule 9.

So, if you are looking at the solid waste of a plastic waste management rules, look at the rule number 9; so, that is as per rule number 9. So, producer, what they have to do? Within 6 months from the date of publication of rules, they have to work out waste collection system based EPR; now, what is this EPR? EPR stands for Extended Producer Responsibility.

So, if I can write it here, it is Extended Producer Responsibility. Now, what is this actually mean? It means that, as the producer of plastic packaging or you are using

plastic as part of your product either as a package or as if as a container, as the company, the producer is responsible for managing that plastic waste. All the way to it is final treatment and disposal, that is the extended producer responsibility.

So, if you think from in just from an English point of view, their responsibility is being extended and extended all the way to disposal. Say, if I am producing it for example, say if certain company x is producing a product y which is in a container or plastic, now once the y product has been consumed that plastic container needs to be disposed or recycled.

So, for that the company which produce the product, but produce that y product is also responsible. So, that is the extended producer responsibility. So, that is it was said that, within 3 years or within sorry within 6 months of the date of publication of rules. So, although lot of, I think more than nearly 2 years will be passed in few months from now. So, that is, I do not know how much of these have been implemented, but within 6 months, I do not think much of is implemented yet; within 6 months of the date of publication, they have to work out waste collection system based on EPR, then it also says within 3 months, shall apply for state pollution control board, pollution control board for registration.

So, this is easy part; within 3 months you can apply for pollution control board registration, after 6; after expiry of 6 months of publication of rules, shall not use any plastic or multi layered packaging, but is it really happening on ground. Based on what you and I have been saying at different places just a couple of weeks back, I was traveling through Kolkata airport. And few days before my travel, I saw a newspaper article suggesting that, Kolkata is now plastic free; can Kolkata the airport is plastic free. And I went there; when I was looking at different packet, different food items and other things that are being sold it was lot of stuff were packaged in plastic.

So, as this gentleman what does this mean, that a newspaper report the vendor who was selling it, I asked in that newspaper report says that, this airport is plastic free, but you are selling product which is wrap is still in plastic. And he said, he was not aware of the newspaper report for the first time, for our sake of argument and then he, that is what he said and that he is not aware of any newspaper report and he said yes there has been

some push at the airport to make it less as less plastic as possible, but since this material comes in package of plastic anyway.

So, how can we take it out and sell it just the like a non sealed materials nobody will buy that and the that is a very fair, very good or like that is a very fair argument and very true argument. That since, if it will not packaged like you and I will not buy it, because what is the guarantee that this fresh, what is the guarantee that it is not duplicate or fake product.

So, then; so, that is the so, we have a lot of challenges in there. So, that is why when the rules are implemented so, kind of those of you who have listened to me earlier in my solid waste class. So, you will probably get the same argument here as well I am sorry for that, but it is the same scenario.

So, in solid waste tools also we say something similar, in e-waste rule also we say something similar, but the problem that I have is, you tell them that within 6 months you do this, within 3 months you do this, but where is the infrastructure, where is the infrastructure to really implement the rule? They, will do an EPR for example, Pepsi or this different companies which are producing different food products, there is facilities food products, there is facilities not waste management. I do not know, why we get always confused that, everybody can do everything; not every people should be allowed to do things, in which they have certain expertise, they have certain credentials.

So, thinking that Pepsi will set up something to manage all their plastic waste. Pepsi should partner with someone who is a specialized in that area. And that partnership needs to be facilitated as I have said earlier to in other others in other courses and other videos, that in its you have to the government agencies has to do some sort of facilitation.

And that is where, wherever this EPR concept has really kicked off, EPR concept is nothing new, it has been tried and tested in different countries around the world; especially, European countries, in North America and other places they are doing it, but there is a, they are facing a lot of challenges in implementing this.

So, although their conditions is slightly better or than our condition, but at the same time, what wherever I have seen it working effectively is where that government has come in

and try to put all the stakeholders on board and just government just watches the whole thing being taken up, but make sure that it does happen.

So, in terms of EPR for example, what I first hand experience from the Canadians perspective was that the companies whichever is selling products, they just a very small fraction of the money revenue that they generate goes to this, what is known as a stewardship program. So, on till your stewardship program for say plastic or for electronic waste or for different types of waste so it just goes into that program. And then different vendors who are specialized in waste management, they use that money and do the managing of the waste. So, they do not have to take people, do not have to go and do things which they are not expertise to do and they will probably do a lousy job in that anyway.

And so, that is and the people who are expert comes in and do the things, but of course, it needs money. And the money comes from the companies who are making those product. So, that kind of and that all the things is being facilitated by a few people from the government and who is overseeing the whole program, making sure things they have done, keep a tab on all the different stakeholders involved and report the progress to the government agencies. So, that had, that model showed promised, that model showed some sort of things to happen.

So, what I am trying to say is we need to really work on getting the infrastructure build up, otherwise to tell them that, within 3 months you do that probable we will go ahead and do it, but they will work out the waste collection system based EPR, they are not a waste collection, this is all the companies are not really expert. So, different companies needs to come together they hire a consultant and a waste management company which can do for them and the government really makes need to make this facilitation so that it does happen.

Otherwise they will be everybody will just trying to do something on their own and not really the rules will not really get implemented. And then after expiry of 6 months of publication of rules should not use any plastic or multi layered packaging great; but what is the alternative, do we have alternative? Certain materials which requires to be like I would say, not can you cannot expose it to air to the moisture for example, think about

sugar very simple, sugar we each one of us uses it, may be someone less someone more, but each one of us use sugar.

So, can you these days most of the sugar, when you go to buy sugar from a market, it would be packaged in a plastic, even the [FL] and other things are also packaged in plastic. But the reason, I am asking talking about sugar is sugar with little bit of moisture hot and humid condition with sugar. You see the how that texture and the whole things changes, if you put it in a jute bag or a plus and a cloth bag just by itself, most of many of things will is stick on the cloth bag and then if you have a say, if it is a hot day, a little bit of humidity; you will see the sugar is getting really bad, it starts looking bad.

So, consistency goes away, the grains starts getting together and then if some companies wants to keep sugar that way, you and I will probably will not try to buy it, we will try to buy it from someone else which has some other way of packaging sugar. So, the alternatives has to be there, we can ban plastic, we can say will not use plastic, but we have to first, they also invest money to do research and to come up with products which can potentially replace plastic for all of its uses.

So, that is where the focus needs to be, just banning something and saying that we will not. So, there are many products which needs to be kept moisture proof, needs to be airtight and for those products you need this kind of packaging material unfortunately. And you cannot say that, after 6 months you will not use that, but how? So, what I will do, like after 6 months where is the alternative? Is it too costly, what will happen to my business so, how I will store my product, how I will sell to my customer?

So, there are a lot of questions that needs to be answered before we kind of put these dates which is most of the time is unrealistic dates. And what happens is, since these are unrealistic after 6 months people will think, we have we did not do anything in 6 months so, why should we do anything anymore and. So, we should also put these dates to be a bit practical, not just like a some I would say it is more becomes a theoretical exercise rather than practical challenges are lost.

So, you have to keep those into consideration before you make any of those date recommendations. So, what I think; and then producers one more we have missed this part, that producer, importers and brand owners is responsible to collect back sachets or pouches. And plan of collection to be submitted to a state pollution control board.

This is again is a I do not know, how this ever it is going to get done, only because it sounds great it is, but if you think from a practical point of view, is it really possible to do that? See, I buy a sachet of shampoo from a shop, then I travel for 200 kilometers I take my shower there and then I just dump it in the trash can over there.

Now, where my company, will there will be a company person tracking all those sachets from different places, yes so, how what is the ideally, what it should happen is government should set up a system because waste is right now controlled by the municipal government which is essentially part of a state government or again or you can say state and then above a state is the central government.

So, we have the central government, we have the state government, we have a city rules, municipalities nagar palika or nagar panchayat and different. So, mostly waste is managed at ULB level, Urban Local Body in nagar panchayat, nagar palika, nagar parishat those levels where the waste is being managed.

So, as based on the, again I will say the based on the amount of cell that these different companies have for these different sachets and pouches. Ask them to pay just a penny, just 1 paisa or 2 paisa whatever is relevant amount to this ULB budget and then the ULB as a part of their waste management system should have this as one of the contract item, I concrete items, one of the tender items when they go out for tendering of waste collection system.

So, that is how it should be probably because you have to look at in a comprehensive way for example, these producers, importers and brand owners, they go around they even collect all these pouches; what they will do with that? They do not have a treatment system, they do not have a disposal system, they do not own a treatment system, they would not own a disposal system.

And for the volume that they will collect off these pouches and sachets for a one particular say city area, because if you are going around and trying to collect just this poaches and sachets, you are probably will end up for harming the environment more by the fuel, that you will consume in your diesel truck or your diesel vehicle or a petrol vehicle whatever vehicle you use; so, why it should be collected.

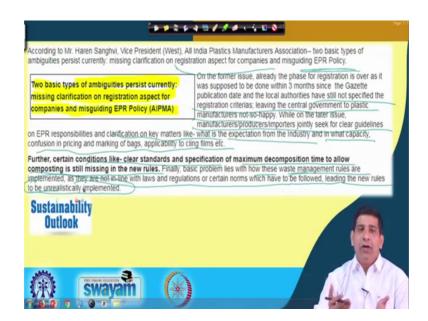
Since, there is a collection system in place yes, our system is may not be working very effectively, that is understood. But, why to create another system which we know is not going to work effectively, why do not we improve on the existing system which at least has something, there is some structure is there, some backbone is there. Let us, add some meat to this backbone and make it a more robust, system bring some money here. So, this could be done by getting this again part of the funding coming from these producers, importers and brand owners.

And then, the city waste management's or the waste existing waste management planned should include that rather than having a separate stuff and rather than throwing this entire responsibility on the private sector. Private sector whatever is there, this specialized is they are working on that area.

In waste management sector, we have to have a public-private partnership. We cannot just leave everything to the private sector and that is not it because waste management most of the stuff does not really make money, at least in the short term.

So, you have to the government you have to finance it through the so, revenue from the private because as through this some charges for the amount based on their sales. And then of course, the taxes that the government collects, that also needs to go and there has to be a user disposal fee. So, as a consumer we have to pay some user disposal fee as well, everywhere in the world they do. So, we have to do in it where everywhere in the world where the waste management is really working effectively, they do have a waste management fee for every household.

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So, there have been some issues like what highlighted by me, in terms of plastic waste management rules. And then, here are there are some more issues which has being brought into action by some of the experts in this area.

So, according to Mr. Haren Sanghvi this is again part of a newspaper report, as part of the vice president waste of All India Plastic Manufacturing Association, two basic type of ambiguities are there, in terms of; so, there was missing clarification or registration aspect of the company and miss guiding EPR Policy. So, which kind of we touched upon that in our discussion.

So, he talks about, when the former issues, the already the phase of registration is over; so, it was supposed to be done within 3 months since, the gadget publication day and the local authorities, I was still not as specified registration criteria's. So, although the gaxette say 3 months, but the local government has not even come up with the criteria for registration within 3 months. So, how then is possible?

So, that is become really like we can laugh on it, I feel actually sometimes I feel really sorry about the state of affairs. We can laugh on it, but it is a very serious problem like why who came up with this 3 month idea, that maybe that person is not at all aware of the practical situation of the country. He or she is just sitting in an AC room and writing this fancy regulations, but they are not really aware of, what is really is happening on ground. Because you see the example right here, the gazette came and within 3 months

registration you are supposed to be over as per the gazette, but the local authorities have a still not have not even identify I specified the registration criteria.

So, what does that mean? Like a we do not know what is going to happen now like a weather I do not know whether each of the local government has finished that exercise even on today. So, while; so, that is one issue, while on the EPR they he mentions; Mr. Sanghvi mentions that, manufacturer producers importers jointly seek for clear guidelines on EPR responsibility and clarification on key matters like, what is the expectation from the industry and in what capacity, confusion in pricing and marking or bag, applicability of cling films excreta. So, that is there because they are just saying that EPR ok, within EPR what would be the rest roles and responsibilities of the different stakeholders, how will they get together?

Because since, they again we have to really realize that if the manufacturers are good in manufacturers, let them do the manufacturing. Waste management companies are good in waste management stuff, at least they are trying in waste management stuff, we not been doing the very great in the country as of today, but there are some pockets of excellence; we should always look to though them as well. There are some municipalities, some parts of the country, they really they are trying their best, they are doing some of the stuff, they are doing is kind of world class as well. I can say that, based on my cell being seeing waste management facility in several countries like 12-13 countries definitely.

So, I can say that, there are some initiatives which are which are very very good. So, we need to learn from those initiatives and try to replicate it in other parts of the country. So, that is what and we need to come up with some clear clarification in terms of the rules. So, that people who really want to obey the rule, follow the rules should be able to do that.

Further, there are some other considerations that certain conditions like clear standard, specification or maximum decomposition time allow for composting. Finally, basic problem is how these waste management rules are implemented; so, how these rules will be implemented, as they are not in line with the rules and laws and regulation and certain norms which have to be followed, leading the new rules to be unrealistically implemented; this is what I have been trying to tell you in the previous when we are discussing things from the previous slide.

So, we have to be realistic, that is one bigger problem in general in the waste management sector in India right now or many developing countries is we become too much idealist. We think that, everything we need to get done in two days, that does not happen, think these kind of things do take time and you have to give it a time. In Hindi, I hope that many of you understand Hindi; in Hindi there is like what we say [FL] there is a big difference there like, we have to do it quickly, but not in haste.

So, we need to do like anything do not procrastinate, but do as per pace. So, [FL] because when you go for [FL] when you go for haste actually, problem gets more complicated, problem gets more worse and you end up taking decision which are actually could be more harmful to environment, then what you started with.

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So, and then; so, if again continuing with that manufacturer and use of non recyclable must be phased out in 2 years and again we are close to 2 years, I do not know whether we will be able to face them out, because again we need this, we need material which can replace them. Once we have that, it will get replaced because nobody wants to harm the environment if they do not have to especially if the profit it does not go down too much and the cost does not go up too much. So, that is how it will.

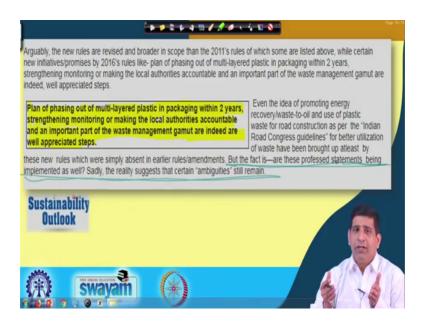
So, we have to come up with a material which can replace plastic and can do most of the function that plastic does. Again, I think I have said that earlier in some video as well, one thing we have to realize, plastic is not a problem, plastic waste is a problem. It is not

that plastic that we need to really click, if we can manage all the plastic waste, plastic is a wonderful material as such. The problem comes when we do not manage the plastic waste properly, that is where the issue is.

Of course, there are some plastic which is very difficult to manage, especially those micro plastics and other stuff which goes into the waters to our effluent treatment plant and all that micro plastics; they are difficult to manage.

So, yes so, the certain small sizes maybe, we do not need to use them anymore because they are more nuisance in the environment, but the bigger size particles, bigger like anything more than 50 microns, it is more how would say, it is the plastic waste which is a problem rather than plastic being a problem. Producer should also maintain a record of raw material supplier, so that is fine they must be doing it anyway.

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So, just; so, in continuing with that sorry continuing with that particular discussion from a sustainability outlook magazine, it says that, new rules are revised and broader in scope than 2011 rules in which some are listed above, which certain new initiative like phasing out of multi-layer plastics in 2 years, a strengthening and monitoring of making the local authorities accountable, if those are there.

Promoting; the idea promoting energy recovery, waste oil or use a plastic waste for road construction as per Indian Road Congress guideline for better utilization of waste has

been brought up at least these new rules which was some which were absent in the previous rules.

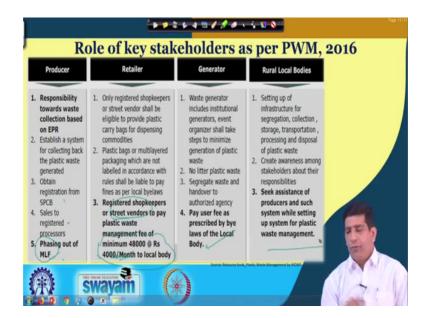
But the fact is which is a very very important kind of document again from Mister Harish, we talked about just a second, we take talked about him in a minute Mr Haren Sanghvi; Mr Haren Sanghvi here again he makes an a statement; talking about that, but the fact is, are these prophecies statement being implemented as well? Sdly the reality suggests that certain ambiguities is still remained.

So, we have to and these ambiguities will go as we work on it; thing is that, once this rule comes in all the different stakeholders has to come together on a table and discuss that rule threadbare, come up with the implementation plan. An implementation plan should include the regulator and also the people who are being regulated, because we have to get the practical aspect of that. If the companies are saying that whatever you are suggesting cannot be regulated within the time frame, that you are suggesting, we have to take their view, because if you try to come up with an unrealistic plan, that plan is bound to fail.

So, and of course, we need to understand, why the limitations are being highlighted from these companies and are they really the limitations are they just coming up with some excuse. Those things can be figure it out, those that much capability, we have that we can figure those things out, but we need to take all the stakeholders on board, then only you can implement this policy and get rid of certain ambiguities which becomes a big problem in implementing any rules.

And that is end, whatever we have been discussing right now, it is kind of true for every rule, does not matter which rule we talked about implementation is always a challenge.

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So, we will look at this slide and then we will stop for this particular video. So, in terms of role of key stakeholders as per plastic waste management rules, 2016; there is a producer has a responsibility to our waste based collection of EPR which we talked about this is kind of summary of all the stuff we discuss today and slightly from the previous week as well.

So, responsibility towards waste collection through EPR, establish a system for collecting back the plastic waste generated, obtain registration from the state pollution control board, sales to register preprocessor and phasing out multi-layered plastic.

Now, retailer; now, only registered shopkeepers street vendors will be eligible to provide plastic packaging; so you have to register, plastic bag or multi layer packaging which are not labeled will be liable to fine, they will register at shopkeepers esteem vendors to pay plastic waste management fee of minimum 48000, that is rupees 4000 per month to local body. This is becoming, I think this is a bit too high, for especially for a street vendors like 4000 a month, for a street vendor that is kind of like, it is a pretty high all right. So, I do not know, but what they mean by I would have to check, but there is some again some ambiguity is there.

So, suppose a small jalebi shop or jalebi, samosa, pakoda shops owner is there in a small like what we call it thela, a small he has stuff on a side of a road. He comes in the evening, every evening he stays there for 2-3 hours and sells his stuffs and maybe make a

profit of 400, 500 or that is maybe too high, maybe 200 to 300 a month; 300, 2 to 300 per day.

So, even if he say, 250 rupees per day; so, for his monthly salary comes down to be around 7500. And out of that, if it has to give 4000 for his plastic packaging, that is too much of a money, but I hope they are not included in here. So, that kind of ambiguities needs to be resolved like who is included, who is not included. And then the question will be if they are not included, then are they allowed to do that plastic waste what will happen to the plastic waste that they generate, who will manage that?

So, that is those things needs to be worked out in terms of details. Now, generators include institutional, event organizers, alistair minimize, no litter plastic waste, segregate waste, pay user fee and those things are there, local rural local bodies setting up infrastructure for segregation, create awareness seek assistance or producers sitting up say plastic waste management. So, these are role of different stakeholders, some are good, some are practical many of them are impractical, needs revision, probably as we work on it, it will get revised from in their coming years and then we will probably have a better rule in terms of which can be really implemented.

So, with that, let us stop here for this particular video. And I think were we have covered pretty much for the plastic waste management rules. We have some a small points still left which will take care of in the next video and then we will proceed to global rules in video 4 and 5 will focus mostly on global rules and how they compare with the Indian rules. So, thank you and keep watching, keep your questions coming on in the discussion forum, any issues let me know; thank you and through the discussion forum.

Thank you.